

**SYSTEMS AND METHODS FOR FAULT-TOLERANT PROCESSING WITH  
PROCESSOR REGROUPING BASED ON CONNECTIVITY CONDITIONS**

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**ABSTRACT**

Each processor in a distributed multi-processor environment maintains a set of connectivity condition scores. The connectivity condition scores are then passed to a pruning process with tie-breaker logic that selects certain of the processors to include in the new system configuration. The surviving processors are selected based on primary connectivity information and secondary processor connectivity condition scores. The result of the pruning/tie-breaker process is transmitted to all of the surviving processors, which continue to maintain connectivity information that can be used in the next regroup incident.